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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,485	10/20/2003	Stephen G. Dick	I-2-0137.2US	7905
24374	7590	11/01/2007		
VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER JONES, PRENELL P	
			ART UNIT	PAPER NUMBER
			2619	
			MAIL DATE	DELIVERY MODE
			11/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/689,485

Applicant(s)

DICK ET AL.

Examiner

Prenell P. Jones

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 8/20/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

1. Applicant's arguments with respect to claims 1 and 3-18 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has indicated in "Remarks" that claim 2 has been canceled, therefore the previous 112, second paragraph rejection is withdrawn. However, the indication of claim 2 being canceled is not reflected in the amended set of claims. Examiner will not examine claim 2 on its merits.

The previous 101 rejection is maintained. ***See Interim Guidelines***

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is directed to a data packet which is nothing but a signal or alternatively a data packet is merely data structure representing descriptive material per se and is non-statutory under 35 USC 101.

Since claim 1 is claiming a packet structure, dependent claims 2-6 are rejected as well.

***See Interim Guidelines p. 53+.***

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 7-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant has added new claims 7-18, wherein independent claims 7 and 13 include the limitation of "**formatting non-control data**," which is not discussed in the specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. **Claims 1-6** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Regarding claim 1 and 5**, how can a data packet have processing gain?

**Regarding claim 2**, the preamble recite a method, but claim 1 is not a method.

**Regarding claim 3 and 4** are confusing in that how can a packet have physical encoders?

**Regarding claim 6**, how can a packet comprise a channel?

#### **Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1, 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Popovic (US Pat 6,549,564).

Regarding claim 1, background of invention (prior art) discloses a spread spectrum CDMA mobile communication system wherein the architecture includes utilizing RACH (radio access channels for communicating), access burst (transmission packet) that includes a preamble part and a message part (which is the non-preamble part) (Fig. 1, col. 2, line 14 thru col. 3, line 40), wherein PAPR (gain process) is 1, col. 4, line 37-61) with HPSK modulation providing power gain of less than 1dB for the message part, and with QPSK modulation associated with preamble part providing power gain of 1dB higher than PAPR of the message part (2, line 14-50). Therefore, with the prior art in mind, Popovic teaches Random access in a mobile telecom systems that limits phase transitions in communication information wherein Popovic utilizes maintaining the same PAPR ratio associated with the original binary code

(Equation 4) used associated with the preamble part and the message part, whereby the PAPR of the preamble is still greater than the PAPR of the message part (col. 3, line 41-67, col. 4, line 37-61, col. 6, line 9-33).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement having a greater power gain with a preamble than the power gain of the associated message part as taught by prior art with Popovic random access telecom system in which correlation properties are unchanged with the implementation of further providing successfully completed transmission by further increasing the characteristic of a preamble having a greater gain for the purpose of ensuring that the base station successfully receives the preamble, whereas on the other hand the message portion having a lower gain for the purpose of minimizing interference.

**Regarding claim 5**, Popovic further discloses that the preamble portion is associated with the QPSK-modulated spreading (first spreading factor) and the message portion is associated with the HPSK modulation spreading (second spreading factor) (col. 2, line 14 thru col. 3, line 67, col. 6, line 15-44).

**Regarding claim 6**, Popovic further discloses utilizing radio access common packet channels/RAPCH (Fig. 3, col. 1, line 21-44, col. 2, line 49-51, col. 3, line 41-50, col. 4, line 38-61, col. 5, line 5-26).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Popovic (US Pat 6,549,564) in view of Schramm et al (US Pat 6,553,540).

5. Regarding claim 3, as indicated above, combined Popovic as modified discloses spread spectrum CDMA mobile communication system wherein the architecture includes utilizing RACH, access burst that includes a preamble part and a message part with HPSK modulation providing power gain of less than 1dB for the message part, and with QPSK modulation associated with preamble part providing power gain of 1dB higher than PAPR of the message part.

However, Popovic as modified is silent on first and second convolution encoding schemes.

In a wireless communication system, Schramm discloses utilizing convolution encoders, and a first and second convolution encoding scheme, whereby one encoding scheme results in a higher code rate/gain than the other symbols associated in the packet frame, RACH and associated blocks (Abstract, Fig. 8, col. 2, line 33-47, col. 4, line 22 thru col. 6, line 58). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement utilizing first and second convolution encoding schemes as taught by Schramm into Popovic as modified for the purpose of avoiding generation of additional symbols to minimize interference in a mobile wireless system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

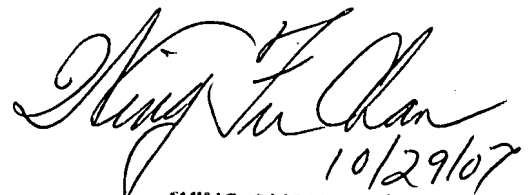
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

October 19, 2007

  
10/29/07  
WING CHAN  
SUPERVISORY PATENT EXAMINER